

# Reinventing Information Literacy with Wikipedia

(in Medical Education)



HEALTH  
SCIENCES  
LIBRARY



# Aloha!

We are:

Melissa Kahili-Heede - JABSOM



Uday AJ Patil - UHM



KJ Hillgren - JABSOM

# Outline

- Wikipedia and Libraries?
- About the pilot project
- Our findings
- Strategic changes we made to improve delivery
- Tour the LMS
- Closing thoughts

“

Wikipedia is the best thing ever. Anyone in the world can write anything they want about any subject. So you know you are getting the best possible information. - Michael Scott





# Libraries & Wikipedia

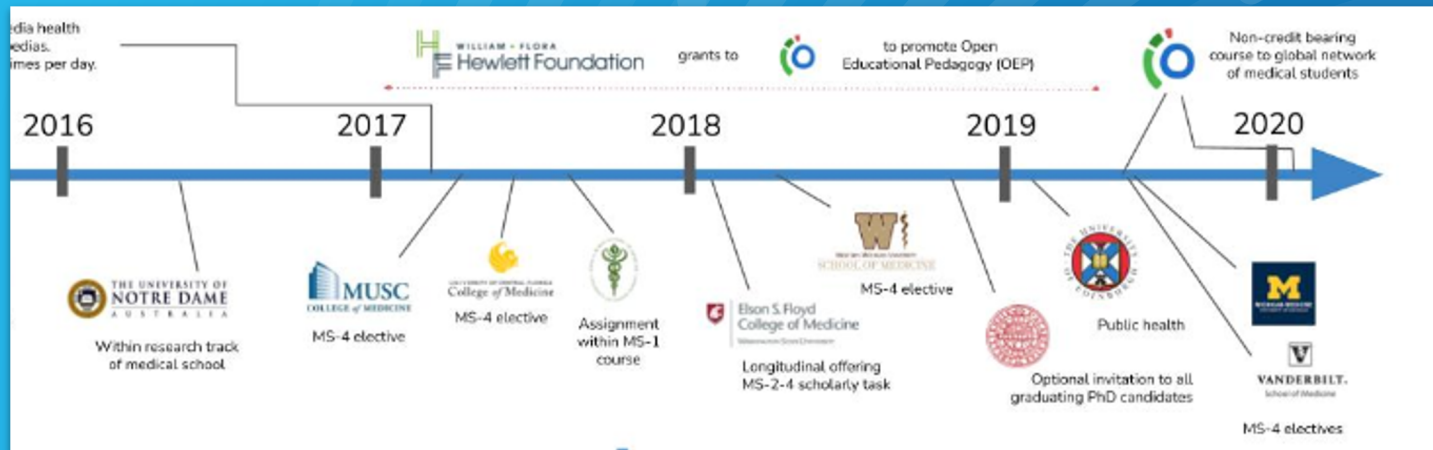
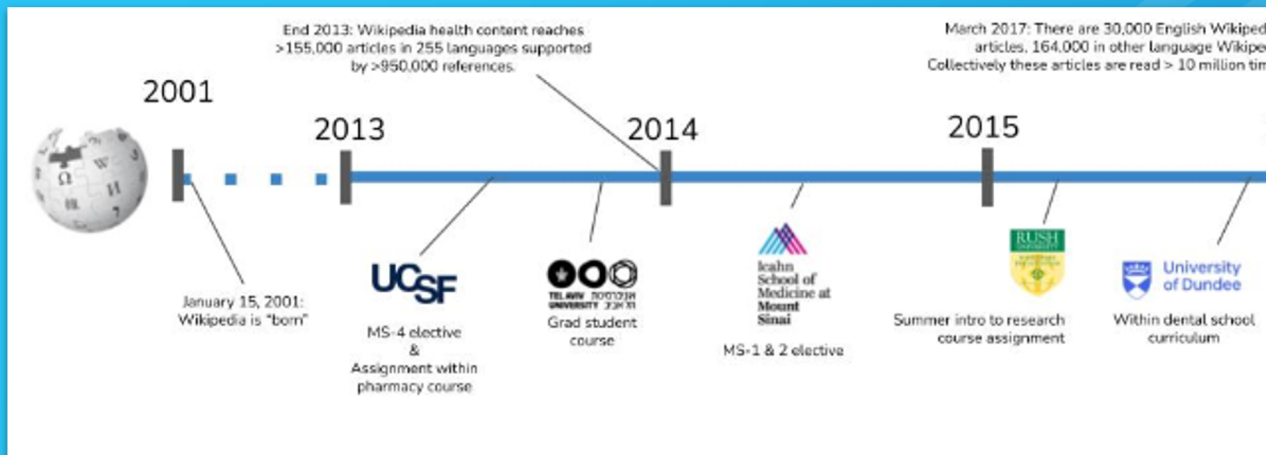
- It's 2020! We can't be Wikipedia snobs anymore.
- “high quality information...suitable for undergraduate medical education.” ([1](#))
- “Wikipedia suffers less from inaccuracies than omissions...they reflect the limited expertise and interests of contributors.” ([2](#))
- Know any information experts?

# About the pilot project



# Why Wikipedia?

What do libraries, medical education, and Wikipedia have to do with one another?



# Wikipedia in a medical school?

- Wikipedia is filling gaps with [WikiProjects](#)
- Medical students with patient perspective leads to better doctors
- Working on Wikipedia articles increase the information literacy for the medical students
- Wikipedia promotes social justice and democratizing information

# Timeline



# Student Experience - training

Complete a series of training modules & exercises

- Wikipedia policies
- Evaluating articles and sources
- Editing health topics
- Evaluating an article



# Evaluating articles and sources

In this tutorial, we'll explore how to read Wikipedia articles, and potential sources, with a critical eye.

COMPLETED

View →



Estimated time to complete:  
20 minutes

## TABLE OF CONTENTS (23)

1. Evaluating sources and articles
2. What makes a good article?
3. Evaluating article quality
4. Elements of quality articles
5. Elements of not-so-great articles
6. Sources and citations
7. Finding sources
8. Why cite?
9. When should you cite?
10. What's a good source?
11. What's not a good source?
12. Close paraphrasing
13. Example of close paraphrasing
14. Copyright

# Student Experience - choosing a topic

Research course related topics to fill in content on Wikipedia articles needing improvement

- [Complication \(medicine\)](#)
- [The Queen's Medical Center](#)
- [Trauma team](#)
- [Metabolic acidosis](#)
- [Respiratory examination](#)

# Student experience - finding sources

Find and synthesize information on the topic with [reliable sources](#)

- Published
- Scholarly
- For medicine, secondary sources better
  - Textbooks
  - Systematic reviews



# In a nutshell

- Tutorials = valuable lessons in digital and info lit
- Apply new skills by editing
- We have access to information to build knowledge that others don't, let's share it!

# Findings

GO TO WIKIPEDIA TO  
CHECK A SINGLE FACT



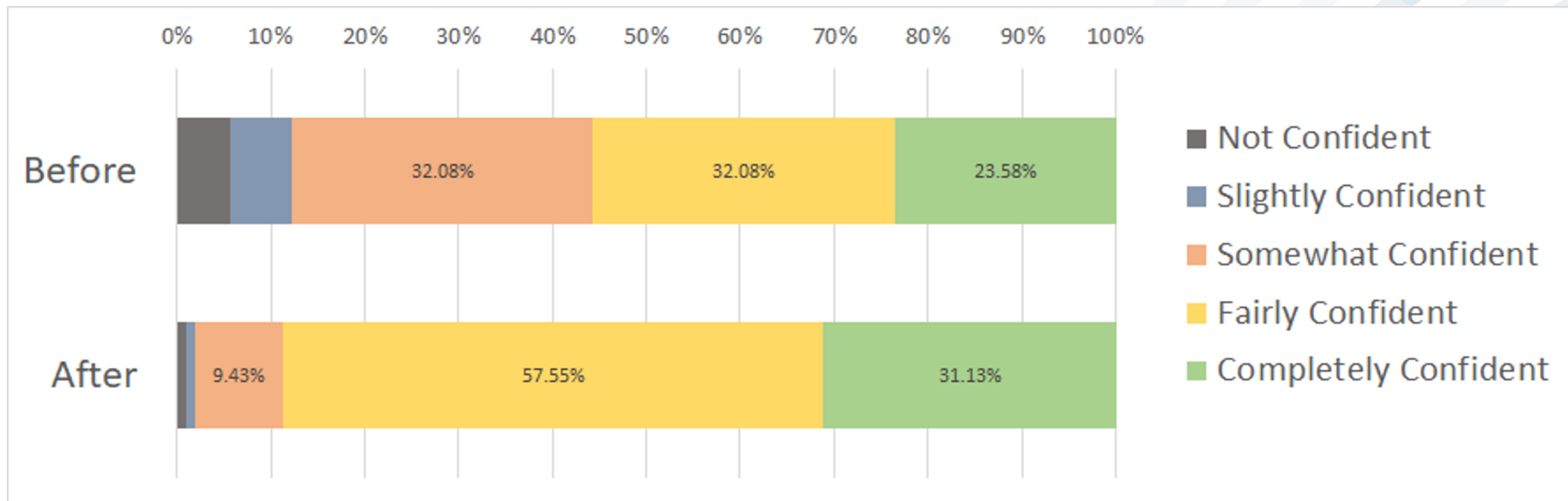
REALIZE 3 HOURS LATER YOU KNOW  
EVERYTHING ABOUT THE SOVIET UNION

# Findings

- Compilation of 2018 & 2019 survey results
- Structural Completeness
  - 2018
  - 2019

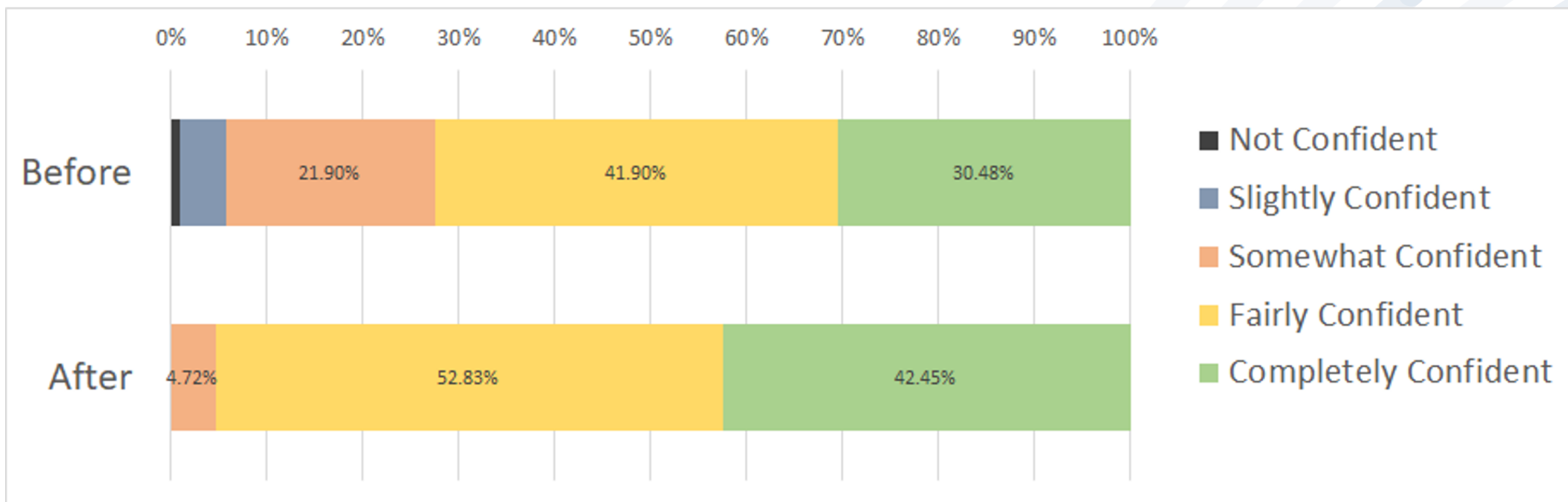


# I know how to determine the authority and credibility of sources.



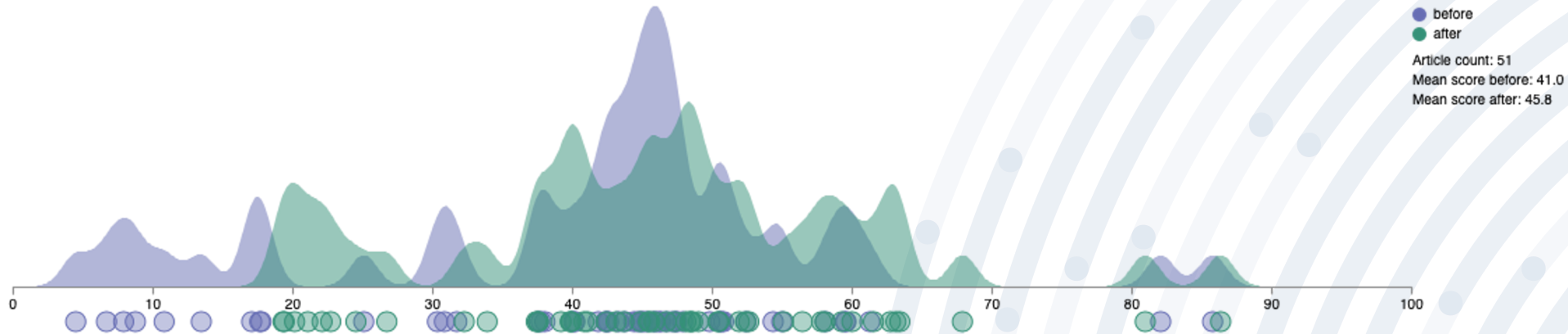
**N = 107 (2018 & 2019)**

# I know how to synthesize information gathered from multiple sources.



**N = 107 (2018 & 2019)**

# Overall change in structural completeness (2018)



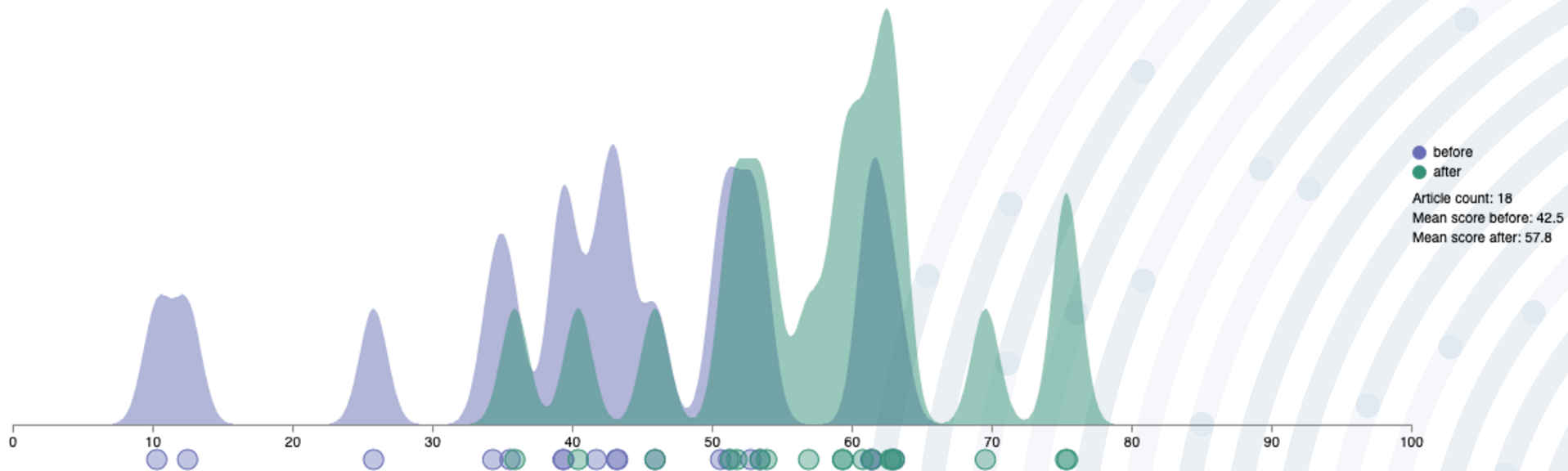
# Improvements to course delivery

Engagement was lower in 2018 cohort.

Reviewed qualitative feedback from them and implemented the following changes:

- Individual to group
- Shorter course time
- More face time
- Incentive = pizza party!

# Overall change in structural completeness (2019)



“

I initially expected to contribute as minimally as possible to receive credit for participating in the project. I didn't think I would make much of a difference particularly because I've seen many Wikipedia pages and they can be extremely extensive. As I saw the change in article completeness and the number of viewers change, it felt pretty cool to add more. At the same time I realized how difficult it is to actually improve an article to 100%. I didn't expect much in the beginning but I wanted and expected more as it went on.

# Dashboard & Best Practices

The background of the slide features a series of concentric, semi-circular arcs in various shades of blue, ranging from light to medium. These arcs are centered on the right side of the image and curve towards the left. Scattered across these arcs are numerous small, solid blue dots, creating a pattern reminiscent of a fingerprint or a stylized sunburst.



## JABSOM MS1 Wikipedia Editing 2019

[Home](#)[Timeline](#)[Students](#)[Articles](#)[Uploads](#)[Activity](#)[Resources](#)[Get Help](#)

18

Articles Edited

830

Total Edits

77<sup>i</sup>

Student Editors

18.6K

Words Added

254<sup>i</sup>

References Added

450K

Article Views

Last statistics update: a year ago. [See more](#)

## JABSOM MS1 Wikipedia Editing 2019

First-year medical students will work to improve the content of health-related articles to improve their information literacy skills.

## This Week

There is nothing on the schedule for this week.

[View Full Timeline](#)

## Details

**Instructors:** [Mkahili](#) (Melissa Kahili-Heede / mkahili@hawaii.edu — Instructor)

**Online Volunteers:** [AminMDMA](#) (Amin Azzam, MD, MA / amin.azzam@ucsf.edu)

**Campus Volunteers:** [LupinusTexensis](#),  
[Udayhawaii.edu](#)

**Wiki Ed Staff:** [Helaine \(Wiki Ed\)](#) (Helaine Blumenthal / hblumenthal@wikiedu.org),  
[Ian \(Wiki Ed\)](#) (Ian Ramjohn / iramjohn@wikiedu.org)

# Week 1: Introduction

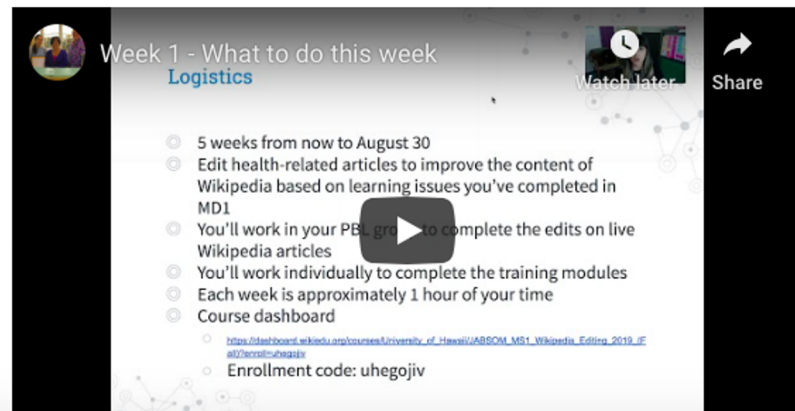
07/28 - 08/03 (Fri)

## Training

In Class

Welcome to your Wikipedia assignment's course timeline. This page guides you through the steps you'll need to complete for your Wikipedia assignment, with links to videos, resources, training modules. For your reference, here are the [class slides from 7/30](#). Here is the [MS1 Wikipedia guide](#) that will also provide an overview of the next 5 weeks.

Watch this video for a reminder of what to do this week:



Week 1 - What to do this week

Logistics

Watch later

Share

- 5 weeks from now to August 30
- Edit health-related articles to improve the content of Wikipedia based on learning issues you've completed in MD1
- You'll work in your PBL group to complete the edits on live Wikipedia articles
- You'll work individually to complete the training modules
- Each week is approximately 1 hour of your time
- Course dashboard
  - [https://dashboard.wikiedu.org/courses/University\\_of\\_Hawaii/JABSOM\\_MS1\\_Wikipedia\\_Editing\\_2019\\_42672enrollinhealth](https://dashboard.wikiedu.org/courses/University_of_Hawaii/JABSOM_MS1_Wikipedia_Editing_2019_42672enrollinhealth)
- Enrollment code: uhegojiv

### Week 1: Introduction

Week 2: Drafting

Week 3: Improving

Week 4: Peer Review

Week 5: Pau

Articles Edited

Assigned Articles

Available Articles

## Available Articles

How to find articles

Add available articles

Find Articles

Class

Title

S

Adolescent medicine

Remove

C

Alternative medicine

Remove

B

Anxiety

Remove

B

Atorvastatin

Remove

S

Cardiac examination

Remove

C

Catheter

Remove

## Students Overview

Students Overview





Assignments &amp; Exercises

Assign random peer reviews ?



Add/Remove Students



Name	Assigned Articles	Reviewing	Words Added (article   user   draft) ?	References Added ?	Total Uploads ?
 <a href="#">sandboxes edits</a> 8/9 training modules completed	<a href="#">Complication (medicine)</a>		2786   46   0	31	<a href="#">0</a>
 <a href="#">sandboxes edits</a> 9/9 training modules completed	<a href="#">Metabolic acidosis</a>		1194   46   0	18	<a href="#">0</a>
 9/9 training modules completed	<a href="#">Complication (medicine)</a>		1193   46   0	14	<a href="#">0</a>
 9/9 training modules completed	<a href="#">SOAP note</a>		432   46   0	25	<a href="#">0</a>

# Complication (medicine)

Quality Problems?



See also: [Adverse event](#)

A **complication** in **medicine**, or medical complication, is an unfavourable **result of a disease, health condition, or treatment**. Complications may adversely affect the **prognosis, or outcome**, of a disease. Complications generally involve a worsening in severity of disease or the development of new signs, **symptoms, or pathologi-**  
**cal** changes which may become widespread throughout the body **and affect** other organ systems. Thus, complications may **lead to** the development of new diseases resulting from a previously existing disease. Complications may also arise as a result of various treatments.

The development of complications depends on a number of factors, including the degree of vulnerability, susceptibility, **age**, health status, and **immune system** condition. Knowledge of the most common and **severe** complications of a disease, procedure, or treatment allow for prevention and preparation for treatment if they **should occur**.

Complications are not to be confused with **sequelae**, which **are** residual **effects** that **occur** after the acute **(initial, most severe)**<sup>[1]</sup> phase of an illness or injury. Sequelae can appear early **in the development of disease** or weeks to months later and **are a result of** the **initial** injury or illness. For example, a scar **resulting from** a burn or dysphagia **resulting from** a stroke would be considered sequelae.<sup>[2]</sup> In addition, complications should not be confused with **comorbidities**, which are diseases that occur concurrently but have no causative association.

## Contents

- 1 Common illnesses and complications
  - 1.1 Iatrogenic complications
  - 1.2 Cardiovascular complications
    - 1.2.1 Atrial fibrillation

Edits by:



(history) | (article development)

[View on wiki](#)

# Our Best Practices

- Had a team to help
  - WikiEdu
  - KJ & AJ
  - OME
- Shortened course time
- Added more in-person sessions
- Students edited in groups
- Incentives increased healthy competition

# Tips

- Look for an existing WikiProject
  - WikiProject Hawaii
  - WikiProject Libraries
- Look for articles interesting to your audience
- Group work is ok!
- Faculty buy-in



# Closing thoughts...

## Limitations

- Like anything, our pilot project isn't perfect.
- Forming learning objectives is hard
- Educational assessment is even harder!

## But it worked!

- We saw positive changes in students evident in the changes they were able to make to articles.
- Also let us engage with students in a more meaningful way

## GLAM

- We can be at home here. [GLAM](#) = Galleries, Libraries, Archives and Museums (also botanical gardens and zoos).
- You don't have to teach with it but we can help improve it.

# Mahalo!

Any questions?

[mkahili@hawaii.edu](mailto:mkahili@hawaii.edu)

# Resources

1. [Kräenbring J, Penza TM, Gutmann J, Muehlich S, Zolk O, Wojnowski L, Maas R, Engelhardt S, Sarikas A. Accuracy and completeness of drug information in Wikipedia: a comparison with standard textbooks of pharmacology. PloS one. 2014 Sep 24;9\(9\):e106930.](#)
2. [Brown AR. Wikipedia as a data source for political scientists: Accuracy and completeness of coverage. PS: Political Science and Politics. 2011 Apr 1:339-43.](#)
3. [Azzam A, Jacobs J, Richards M, Hird K, Kahili-Heede M, Lebowitz D, Costello J, Dexter N, Brock T, Geres N, Brennan E. Wikipedia-editing as a teaching strategy in health professional schools: 6 years, 5 countries, 5 professions... and counting.](#)
4. [WikiEdu](#)
5. [WikiProjects](#)
6. [WikiProject Medicine](#)
7. Tutorial example - [Evaluating articles and sources](#)
8. Wikipedia - [Reliable sources](#)
9. Wikipedia - [GLAM](#)
10. [Using Wikipedia to increase the visibility of digital collections: an editathon](#)

# Credits

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)

# Presentation design

This presentation uses the following typographies:

- Titles: Montserrat Bold
- Body copy: Montserrat Light

Download for free at:

<https://www.fontsquirrel.com/fonts/montserrat>

You don't need to keep this slide in your presentation. It's only here to serve you as a design guide if you need to create new slides or download the fonts to edit the presentation in PowerPoint®